

IN THE CLAIMS

Please amend the claims as follows:

Listing of Claims

1. (Currently Amended) A radio communication apparatus, which can perform radio communication with a communication terminal device of another party, comprising:

a reception section ~~means for receiving that receives~~ signals transmitted from the radio communication apparatus of another party;

a channel time variation detection section ~~means for detecting that detects~~ the time variation amount of channel response using the signals received by the reception section ~~means~~; and

a pilot signal insertion interval determination section ~~means for determining that determines~~ pilot signal insertion intervals using the detected time variation amount of channel response.

2. (Currently Amended) The radio communication apparatus according to claim 1 comprising:

a pilot signal insertion section ~~means for inserting that inserts~~ said pilot signals into information signals to be

transmitted, based on said pilot signal insertion intervals determined by said pilot signal insertion interval determination section means; and

a transmission section means for transmitting that transmits information signals into which said pilot signals have been inserted to said radio communication apparatus of another party.

3. (Currently Amended) The radio communication apparatus according to claim 1 comprising:

an information signal division section means for dividing that divides said information signals to be transmitted based on said pilot signal insertion intervals determined by said pilot signal insertion interval determination section means;

a pilot signal insertion section means for inserting that inserts said pilot signals into post-division information signals which have been divided by the information signal division section means; and

a transmission section means for transmitting that transmits said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.

4. (Currently Amended) The radio communication apparatus according to claim 1 comprising:

an information signal processing section means for processing that processes post-division information signals which have been divided by said information signal division section means;

an information signal merging section ~~means for merging that merges~~ post-division information signals which have been processed by said information signal processing section means;

a pilot signal insertion section ~~means for inserting that inserts~~ said pilot signals into information signals which have been merged by said information signal merging section means, based on said pilot signal insertion interval determined by said pilot signal insertion interval determination section means;

and a transmission section ~~means for transmitting that transmits~~ said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.

5. (Currently Amended) The radio communication apparatus according to claim 4 comprising:

a division length determination section ~~means for determining that determines~~ the division length of said information signals in said information signal division section means, ~~wherein:~~

the division length determination section means is constructed to enable determination of said information signal division length using said time variation amount of channel response.

6. (Currently Amended) The radio communication apparatus according to claim 1 comprising:

a first information signal division section means for dividing that divides said information signals to be transmitted;

an information signal processing section means for processing that processes post-division information signals which have been divided by said information signal division section means;

an information signal merging section means for merging that merges post-division information signals processed by said information signal processing section means;

a second information signal division section means for dividing that divides information signals merged by said information signal merging section means, based on said pilot signal insertion interval determined by said pilot signal insertion interval determination section means;

a pilot signal insertion section means for inserting that inserts said pilot signals into post-division information signals

which have been divided by the second information signal division section means; and

a transmission section means ~~for transmitting that transmits~~ said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.

7. (Currently Amended) The radio communication apparatus according to claim 6 comprising:

a division length determination section means ~~for determining that determines~~ the division length of said information signals in said first information signal division section means, wherein:

the division length determination section means is constructed to determine the division length of said information signals by using said time variation amount of channel response.

8. (Currently Amended) The radio communication apparatus according to claim 1 comprising a transmission section means ~~for transmitting that transmits~~ said pilot signal insertion intervals to notify said radio communication apparatus of another party of said pilot signal insertion interval determined by said pilot signal insertion interval determination section means.

9. (Currently Amended) The radio communication apparatus according to claim 1 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

10. (Currently Amended) The radio communication apparatus according to claim 1 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

11. (Currently Amended) A radio communication method for a radio communication apparatus, which can perform radio communication with a communication terminal apparatus of another party, comprising:

a reception step for including receiving signals transmitted from the radio communication apparatus of another party;

a channel time variation detection step for including detecting time variation amount of channel response using signals received in the reception step; and

a pilot signal insertion interval determination step for including determining said pilot signal insertion interval using said detected time variation amount of channel response.

12. (Currently Amended) The radio communication method according to claim 11 comprising:

a pilot signal insertion step for including inserting said pilot signals into the information signals to be transmitted, based on said pilot signal insertion interval determined in said pilot signal insertion interval determination step; and

a transmission step for including transmitting said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.

13. (Currently Amended) The radio communication method according to claim 11 comprising:

an information signal division step for including dividing said information signals to be transmitted based on said pilot signal insertion intervals determined in said pilot signal insertion interval determination step;

a pilot signal insertion step means for inserting said pilot signals into post-division information signals which have been divided in said information signal division step; and

a transmission step means for including transmitting said information signals to which pilot signals have been inserted to said radio communication apparatus of another party.

14. (Currently Amended) The radio communication method according to claim 11 comprising:

an information signal division step for including dividing said information signals to be transmitted;

an information signal processing step for including processing post-division information signals which have been divided in said information signal division step;

an information signal merging step for including merging post-division information signals which have been processed in said information signal processing step;

a pilot signal insertion step means for including inserting said pilot signals into information signals which have been merged in said information signal merging step, based on said pilot signal insertion intervals determined in said pilot signal insertion interval determination step; and

a transmission step including method transmitting said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.



15. (Currently Amended) The radio communication method according to claim 14 comprising a division length determination step for including determining the division length of said information signals in said information signal division step means using said time variation amount of channel response.

16. (Currently Amended) The radio communication method according to claim 11 comprising:

a first information signal division step for including dividing said information signals to be transmitted;

an information signal processing step for including processing post-division information signals which have been divided in said first information signal division step;

an information signal merging step for including merging post-division information signals processed in said information signal processing step;

a second information signal division step for including dividing information signals merged by said information signal merging step, based on said pilot signal insertion interval determined in said pilot signal insertion interval determination step;

a pilot signal insertion step for including inserting said pilot signals to post-division information signals which have been divided in said second information signal division step; and

a transmission step for including transmitting said information signals into which pilot signals have been inserted to said radio communication apparatus of another party.

17. (Currently Amended) The radio communication method according to claim 16 comprising a division length determination step for including determining the division length of said information signals in said first information signal division step by using said time variation amount of channel response.

18. (Currently Amended) The radio communication method according to claim 11 comprising a transmission step for including transmitting said pilot signal insertion interval to notify said radio communication apparatus of another party of said pilot signal insertion interval determined by said pilot signal insertion interval determination step means.

19. (Previously Presented) The radio communication method according to claim 11 wherein said channel time variation detection step detects said time variation amount of channel

response using signals known to both the transmitter side and the receiver side.

20. (Previously Presented) The radio communication method according to claim 11 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

21. (Currently Amended) The radio communication apparatus according to claim 2 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

22. (Currently Amended) The radio communication apparatus according to claim 3 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

23. (Currently Amended) The radio communication apparatus according to claim 4 wherein said channel time variation

detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

24. (Currently Amended) The radio communication apparatus according to claim 5 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

25. (Currently Amended) The radio communication apparatus according to claim 6 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

26. (Currently Amended) The radio communication apparatus according to claim 7 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

27. (Currently Amended) The radio communication apparatus according to claim 8 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

28. (Currently Amended) The radio communication apparatus according to claim 2 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

29. (Currently Amended) The radio communication apparatus according to claim 3 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

30. (Currently Amended) The radio communication apparatus according to claim 4 wherein said channel time variation detection section means is constructed so as to detect said time

variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

31. (Currently Amended) The radio communication apparatus according to claim 5 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

32. (Currently Amended) The radio communication apparatus according to claim 6 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

33. (Currently Amended) The radio communication apparatus according to claim 7 wherein said channel time variation detection section means is constructed so as to detect said time variation amount of channel response using signals which are not

known to at least one of either the transmitter side or the receiver side.

34. (Currently Amended) The radio communication apparatus according to claim 8 wherein said channel time variation detection section ~~means~~ is constructed so as to detect said time variation amount of channel response using signals which are not known to at least one of either the transmitter side or the receiver side.

35. (Previously Presented) The radio communication method according to claim 12 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

36. (Previously Presented) The radio communication method according to claim 13 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

37. (Previously Presented) The radio communication method according to claim 14 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

38. (Previously Presented) The radio communication method according to claim 15 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

39. (Previously Presented) The radio communication method according to claim 16 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

40. (Previously Presented) The radio communication method according to claim 17 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.



41. (Previously Presented) The radio communication method according to claim 18 wherein said channel time variation detection step detects said time variation amount of channel response using signals known to both the transmitter side and the receiver side.

42. (Previously Presented) The radio communication method according to claim 12 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

43. (Previously Presented) The radio communication method according to claim 13 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

44. (Previously Presented) The radio communication method according to claim 14 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

45. (Previously Presented) The radio communication method according to claim 15 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

46. (Previously Presented) The radio communication method according to claim 16 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

47. (Previously Presented) The radio communication method according to claim 17 wherein said channel time variation detection step detects said time variation amount of channel response using signals which are not known to at least one of either the transmitter side and the receiver side.

48. (Previously Presented) The radio communication method according to claim 18 wherein said channel time variation detection step detects said time variation amount of channel

response using signals which are not known to at least one of either the transmitter side and the receiver side.